Update on HLA-Related DMSO Activities

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Outline

- NATO Steering Group on M&S
- UK HLA Day
- JTA Update
- MRCI Review
- Draft HLA Transition Brief to the EXCIMS

NATO Update

- **NATO Steering Group on M&S is scheduled to identify standards to support the interoperability and reuse of M&S in January 98.**
- **Reported last time on the HLA Technical Workshop held in The Hague in early July, noting encouraging feedback on HLA.**
- **Significant growth in international attendance at Fall SIW, with both a Monday afternoon and evening international forum. Many of the reps there were also key NATO players, and all were very positive about HLA.**
- **My brief to the R&T Board in Bergen, Norway in early September noted SGMS progress to date and emerging consensus on HLA; was received favorably.**
- **21-23 October SGMS meeting in Brussels should identify any remaining issues and may produce an HLA decision.**

UK "FlasHLAmp Awareness Day"

"The Future of Simulation Interoperability and the High Level Architecture"

- **Sponsored by MoD; held October 2nd in London**
- **About 180 attendees from MoD and industry**
- **Agenda included:**
  - **brief on importance of simulation, HLA by Simon Mepham**
  - **my briefing on HLA as cornerstone of the U.S. MSMP**
  - **demos of FlasHLAmp (cooperative MoD-Industry HLA protofeds)**
    - **7 player warfighting federation (DIS legacy systems)**
    - **5 player analysis federation**
  - **HLA technical brief by Peter Hoare**
- **Observations**
  - **good demos, well received**
  - **solid support for HLA in both industry and MoD**
  - **some industry frustration with lack of a formal MoD policy**
  - **serious hands-on experience with HLA and RTI, providing good feedback and lessons learned**

Joint Technical Architecture Update

- **JTA 2.0 (Draft 1) comment resolution occurred 22-26 Sep 97. M&S annex came through with no changes.**
- **However, significant JTA structural issues were raised. TASG decided to restructure document based on the following domains: C4ISR, Weapon Systems, Sustainment and M&S. Core document to contain only those standards that apply to two or more domains. Three month schedule slip.**
- **Revised draft JTA 2.0 out for further coordination 3 November. All comments due by 21 November. Please be ready, review and comment carefully.**
- **Comment resolution in January and February 1998**
- **Approval of JTA 2.0, incorporating M&S, is scheduled for March 1998**

JTA Update (con't)

- The M&S section should remain essentially unchanged except for editorial updates and the addition of a standards applicability statement
- The M&S section of the JTA contains the following standards:
  - Mandated:
    - HLA Rules
    - HLA Interface Specification
    - HLA Object Model Template
    - HLA Object Model Template Data Interchange Format (OMT DIF)
    - Standard Simulator Database Interchange Format (SIF)
  - Emerging:
    - SEDRIS
    - FED DIF
    - Object Model Data Dictionary
- Other JTA standards will also be applicable to M&S unless we take exception

Standards Applicability Statement
to be included in JTA M&S section

The HLA is an implementation-independent specification. It is intended to have wide applicability across a full range of DoD modeling and simulation application areas. A basic design premise is that no one simulation can solve all of the DoD functional needs for M&S. These requirements include training, analysis, and engineering functions, each configured to meet specific objectives with a variety of levels of resolution. The technical architecture provides the framework within which specific systems, targeted against precise requirements, can be developed. While many of these systems will operate in environments that are considered standard and fall within the spectrum of the JTA and DII COE, others may require massively-parallel processing or other unique, laboratory configurations, bringing with them their own set of requirements. Simulation developers should follow those standards required for the environment in which the simulation is implemented.

Standards Applicability Statement
to be included in JTA M&S annex

The High Level Architecture and related M&S standards listed here address those key technical aspects of simulation design necessary to foster interoperability and reuse, but avoid overly constraining implementation details. They are intended for use in simulations addressing a full range of training, analysis and engineering requirements, each of with may have different objectives that dictate different representational details, timing constraints, processing demands, etc. The M&S technical standards in this annex provide the framework within which specific systems, targeted against precise requirements, can be developed. While many of these systems will operate in computational environments that are considered standard and fall within the spectrum of the other JTA standards, some may require massively-parallel processing or other unique, laboratory configurations, bringing with them their own set of requirements. Simulation developers should follow those standards required for the environment in which the simulation is implemented.

MRCI Review

- DMSO assembled a team of experts to review MRCI
- Key questions were:
  - What are the lessons-leaned on federating C4I systems with simulations
  - Is the strategy for building common software to facilitate C4I-Sim interoperability sound?
  - Does the MRCI design approach provide a useful foundation for building common software?
- Review was held August 27-29, 1997
  - good session, but inadequate time for a complicated issue
- A technical report on the MRCI project is now being prepared

C4I-Sim Next Steps

- **Distribution of MRCI report, software, and documentation to interested parties**
- **C4I-Sim Workshop**
  - **to be jointly hosted between DMSO and DISA**
  - **share MRCI assessment**
  - **review other C4I-Sim interface efforts**
    - **SimLink, JVL, MASC, JPSD, etc.**
- **In light of the above, map out future course**
  - **overall C4I-Sim strategy**
  - **C4I Interface software strategy**
  - **cooperative efforts with DISA**
  - **other appropriate initiatives / experiments**